

REMARKS

Entry of the foregoing, reexamination and reconsideration of the subject application are respectfully requested in light of the amendments above and the comments which follow.

As correctly noted in the Office Action Summary, claims 1-4 were pending. Claims 1-4 have not been amended. Thus, upon entry of the present response, claims 1-4 remain pending and await further consideration on the merits.

CLAIM REJECTIONS UNDER 35 U.S.C. §103

Claims 1-4 stand rejected under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent No. 6,450,692 to Toyota (hereafter "*Toyota*") in view of JP 6-306383 to Horano et al. (hereafter "*JP '383*") on the grounds set forth in paragraph 3 of the Official Action. For at least the reasons noted below, this rejection should be withdrawn.

The present invention is directed to fire safe bearings. Bearings utilized in certain installations must meet various Government standards for performance. One such performance standard is the new European Standard (EN 12101-3) which specifies that electric motors used in ventilators should be capable of functioning in high temperature environments for a certain period of time. In addition to meeting such performance standards, these bearings should also be capable of efficient operation under every day conditions.

At least one type of known certified bearings constructed of carbon chromium steel which has been subjected to a suitable heat treatment to render it more stable under high temperature conditions. These bearings utilize high temperature greases

or pastes based on silicone or PTFE thickeners and base oils. However, such bearings do not fulfill the requirements of more stringent high temperature standards such as the one referred above.

An arrangement constructed according to the principles of the present invention is set forth in claim 1. Claim 1 recites:

1. A bearing and lubricant combination for use as a supporting system for a rotating shaft in a smoke and heat exhaust ventilation system and having properties permitting it to fulfill the requirement to withstand an emergency temperature of 600°C for at least 60 minutes with a stand-still of 2 minutes after 15 minutes exposure to the emergency temperature comprising a bearing comprising martensitic stainless steel bearing rings with a steel cage, which bearing is lubricated with an electric motor grease with a base oil viscosity in the region of 50-200 cSt at 40°C.

Toyota and *JP '383*, taken alone or in combination, fail to disclose, or even suggest, the subject matter of the presently claimed invention.

Toyota discloses an arrangement that comprises a rolling bearing wherein the grooves formed in the inner and outer rings have a surface which is coated with a suitable lubricant. Various components of the bearing can be constructed from a martensitic stainless steel. However, as acknowledged in paragraph 3 of the Official Action, *Toyota* fails to disclose, or even suggest, a lubricant of the type recited in claim 1 above.

In addition, *Toyota* has at least one additional deficiency not acknowledged in the Official Action. Namely, claim 1 requires, *inter alia*, "a bearing and lubricant combination . . . having properties permitting it to fulfill the requirement to withstand an emergency temperature of 600°C for at least 60 minutes with a stand-still of 2 minutes after 15 minutes exposure." *Toyota* also fails to disclose at least this aspect of claim 1.

JP '383 is cited as teaching use of a bearing grease having a base oil or synthetic ester and further comprising a soap of polyurea having a base oil viscosity of 10-245 cSt at 40°C. However, even if the teachings of *JP '383* were applied in the manner suggested, the claimed invention would not result. Namely, just like *Toyota*, *JP '383* also fails to disclose any properties of a bearing which would satisfy the above-quoted limitation with respect to emergency high temperature operation. Thus, *JP '383* also fails to disclose this aspect of the presently claimed invention. The proposed combination of *Toyota* and *JP '383* fails to establish a *prima facie* case of obviousness of each and every element required by claim 1. Thus, the rejection is improper and should be withdrawn.

CONCLUSION

From the foregoing, further and favorable action in the form of a Notice of Allowance is earnestly solicited. Should the Examiner feel that any issues remain, it is requested that the undersigned be contacted so that any such issues may be adequately addressed and prosecution of the instant application expedited.

Respectfully submitted,

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AMENDMENTS TO THE DRAWINGS:

Please substitute the attached Replacement Sheets for existing drawings
Figures 1 and 2.